

AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An electronic timepiece comprising:
 - an external input unit for receiving an external input signal;
 - a displaying section for displaying time;
 - a battery;
 - a drive unit for driving the displaying section ~~using with~~ by use of electrical power stored in the battery;
 - a comparator unit for comparing a voltage corresponding to a voltage stored in the battery with a reference voltage,
 - a discharge control unit for starting discharge of the battery when an ~~external input signal ordering start of discharge start is input with the said~~ external input unit receives a predetermined external input signal, and for stopping ~~the discharge of the battery when a comparison result determined by~~ the comparator unit satisfies a discharge stop predetermined condition.
2. (Currently Amended) An electronic timepiece according to claim 1,
 - wherein the discharge control unit resumes discharge ~~from of~~ the battery when ~~the a comparison result determined by~~ the comparator unit becomes ~~unsatisfying to does not satisfy the discharge stop predetermined~~ condition.
3. (Currently Amended) An electronic timepiece according to claim 2,
 - wherein the discharge control unit, when ~~a predetermined external signal is received by the~~ external input unit receives the predetermined external input signal, starts discharge ~~from of~~ the battery ~~in using~~ a first discharge ~~method~~procedure; and
 - wherein the discharge control unit, when the comparison result determined by the comparator unit satisfies the discharge stop predetermined condition, stops discharge ~~from of~~ the battery, and restarts discharge from of the battery ~~in using~~ a second discharge ~~method~~procedure;

~~wherein-in which the~~ discharge rate of the second discharged procedure
is lower than that of the first discharge ~~method~~procedure.

4. (Currently Amended) An electronic timepiece according to claim 1, further comprising a discharge unit which forms a closed circuit with the battery;~~and~~
~~wherein the discharge unit~~ conducts a discharge current which flows from the battery through the closed circuit and lowers voltage stored on the battery.

5. (Currently Amended) An electronic timepiece according to claim 1,
wherein the discharge control unit ~~executes the discharges from the~~
battery by ~~controlling~~ causing the drive unit to drive the display section.

6. (Currently Amended) An electronic timepiece according to claim 1,
wherein the displaying section comprises a rotating mechanism driven by an electric motor~~an electric motor and a rolling system driven by the electric motor to change display of the displaying section, and,~~
the discharge control unit ~~executes the discharges from the battery by~~
~~controlling~~ causing the drive unit to ~~fast forward~~ increase the speed of the rolling system~~rotating mechanism~~ of the displaying section.

7. (Currently Amended) An electronic timepiece according to claim 1, further comprising a charging state judge unit for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a first displaying ~~state~~ procedure when a predetermined external input signal is received by the external input unit, and for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a second displaying ~~state~~ procedure ~~which is different from the first displaying state when a comparison result determined by the comparator unit becomes satisfying to~~ satisfies a second predetermined condition.

8. (Currently Amended) An electronic timepiece according to claim 1, wherein the displaying section comprises a rotating mechanism driven by an electric motor~~, and a rolling system driven by the electric motor and changing display of the displaying section, and said the~~ electronic timepiece further ~~comprises~~ comprising:

a charging state judge unit for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a first displaying state ~~procedure~~ when a predetermined external input signal is received by the external input unit, and for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a second displaying ~~procedure~~ state ~~which is different from the first displaying state~~ when the ~~a~~ comparison result determined by the comparator unit ~~becomes satisfying to~~ satisfies a second predetermined condition,

a trouble detecting unit for detecting a drive ~~trouble~~ problem ~~of in~~ the electric motor, and,

a drive trouble judge unit for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a third displaying state ~~procedure~~ when a predetermined external input signal is received by the external input unit, and for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a fourth displaying state ~~procedure~~ which is different from the third displaying state when a drive ~~trouble~~ problem is detected by the trouble detecting unit.

9. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a displaying section for displaying time;

a battery;

a drive unit for driving the displaying section by use of electrical power stored in the battery;

a comparator unit for comparing a voltage corresponding to a voltage stored on ~~in~~ the battery ~~or a voltage corresponding to the voltage~~ with a reference voltage; and

a charging state judge unit for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a first displaying state ~~procedure~~ when a predetermined external input signal is received by the external input unit, and for ~~controlling~~ causing the drive unit to drive the displaying section ~~into~~ using a second displaying state ~~procedure~~ which is different from the first displaying state when the ~~a~~ comparison result determined by the comparator unit ~~becomes satisfying to~~ satisfies a predetermined condition;

10. (Currently Amended) An electronic timepiece according to claim 9,

wherein the charging state judge unit ~~for controlling causes~~ the drive unit to drive the displaying section ~~into using~~ the first displaying state ~~procedure~~ when the ~~a~~ comparison result ~~determined~~ by the comparator unit becomes satisfying to ~~a does not satisfy predetermined condition and then becomes unsatisfying to the predetermined condition.~~

11. (Currently Amended) A ~~check~~ method for checking an electronic timepiece comprising: ~~an external input unit for inputting an external input having a charge storage unit and a time display;~~

~~a displaying section for displaying time;~~

~~a battery;~~

~~a drive unit for driving the displaying section by use of electrical power stored in the battery;~~

~~a comparator unit for comparing a voltage stored on the battery or a voltage corresponding to the voltage with a reference voltage;~~

~~a discharge control unit for starting discharge of the battery when a first external input ordering a discharge start is received by the external input unit, and for stopping the discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition; and~~

~~a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a second external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition;~~

~~the said method comprising:~~

~~a first step of initiating a discharging of the charge storage unit in response to a first external signal controlling the voltage stored on the battery by giving the first external input signal from the external input unit and thereby starting the operation of the discharge control unit;~~

~~a second step of controlling the time display in accord with a measure of the voltage of charge storage unit in response to a second external signal judging the voltage stored on the battery or a voltage corresponding to the voltage from~~

~~the displaying state of the displaying section by giving the second external input signal to the external input unit and thereby starting the operation of the charging state judge unit.~~

12. (Currently Amended) ~~A~~ The ~~check~~ method according to of claim 11, wherein:

~~the electronic timepiece wherein the external input unit comprises a further includes a first and a second switch; for adjusting time on the displaying section;~~

~~in the first step, the first external input signal is generated by operation to of the first switch;~~

~~in the second step, the second external input signal is generated by operation to the second switch; and,~~

~~during or after the second step, a time setting is adjusted with by operation of the first switch.~~

13. (Currently Amended) A ~~check~~ method for checking an electronic timepiece comprising having a charge storage unit, a time display, and an electric motor,

~~an external input unit for receiving an external input signal;~~

~~a displaying section for displaying time, the displaying section including an electric motor and a rolling system driven by the electric motor and changing display of the displaying section;~~

~~a battery;~~

~~a drive unit for driving the motor of the displaying section using with electrical power stored in the battery;~~

~~a comparator unit for comparing voltage stored in the battery with a reference voltage;~~

~~a discharge control unit for starting discharge of the battery when an external input signal ordering start of discharge start is input with the external input unit, and for stopping the discharge when comparison result by the comparator unit satisfies a discharge stop condition;~~

~~a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to~~

~~drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition;~~

~~a trouble detecting unit for detecting a drive trouble of the electric motor;~~
and

~~a drive trouble judge unit for controlling the drive unit to drive the displaying section into a third displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a fourth displaying state which is different from the third displaying state when a drive trouble is detected by the trouble detecting unit;~~

~~the said method comprising the steps of:~~

~~a first step of initiating a discharging of the charge storage unit in response to a first external signal starting the operation of the discharge control unit, and controlling the voltage of the stored electricity of the battery by using an input of a first prescribed external signal as a start condition;~~

~~a second step of controlling the time display in accord with a measure of the voltage of charge storage unit in response to a second external signal starting the operation of the charging state judge unit, and controlling the displaying state of the displaying section in accordance with the voltage of the stored electricity of the battery by using an input of a second prescribed external signal as a start condition; and~~

~~a third step of, in response to a third external signal, monitoring the electric motor for drive problems and controlling the time display to indicate any found problem starting the operation of the drive trouble judge unit, and controlling the displaying state of the displaying section based on the detection result of the drive trouble of the electric motor by using an input of a third prescribed external signal as a start condition.~~

14. (Currently Amended) ~~A The check method for the electronic timepiece according to of claim 13, wherein:~~

~~the time piece further includes wherein the external input unit comprises a first and a second switch for adjusting time on the displaying section;~~

the first external ~~input~~ signal is generated by operation ~~to~~ of the first switch;

the second external ~~input~~ signal is generated by operation ~~to~~ of the second switch; and,

during or after the second step, a time setting is adjusted by operation of the first switch.

15. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit ~~for notifying a user~~ for issuing a notification to a user;

a battery;

a comparator unit for ~~measuring~~ comparing the a voltage corresponding to a voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a charge state judge unit for ~~causing~~ controlling a notification state of the notification unit to issue the notification using a first state-notification procedure when a predetermined external signal ~~with the is received~~ external input unit is input, and for ~~controlling~~ causing the notification unit to issue the notification a notification state of the notification unit to using a second notification procedure state which is different from the first notification state when after the first state the battery unit is charged and the a comparison result determined by the comparator unit ~~becomes satisfying to~~ satisfies a predetermined condition.

16. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit ~~for notifying a user~~ providing a notification to a user;

a battery;

a comparator unit for ~~measuring~~ comparing a voltage corresponding to a the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a discharge control unit for starting discharge of the batter when a predetermined external input signal is input ~~with the external input unit received~~, and for stopping discharge of from the battery when ~~the a comparison~~

result determined by the comparator unit ~~becomes satisfying to a discharge step~~
satisfies a predetermined condition; and

a charge state judge unit for ~~controlling a notification state of causing the~~
notification unit to provide the notification using a first state notification
procedure when a second predetermined external signal is received ~~with the~~
~~external input unit is input~~, and for ~~controlling causing the notification unit to~~
provide the notification using a notification state of the notification unit to a
second state notification procedure ~~which is different from the first notification~~
~~state when after the first state the battery unit is charged and the a comparison~~
result determined by the comparator unit ~~becomes satisfying to a~~ satisfies a
second predetermined condition.

17. (Currently Amended) An electronic timepiece according to claim 16,

wherein the charge state judge unit ~~controls a notification state of causes~~
the notification unit to provide the notification using to the first state procedure
when the ~~a comparison result determined by the comparator unit becomes~~
~~satisfying to a predetermined condition, and then becomes unsatisfying to a~~ does
not satisfy the second predetermined condition.

18. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for ~~notifying~~ issuing a notification to a user,
comprising a displaying section including a rotating mechanism driven by ~~with a~~
~~rolling system by an electric motor~~;

a battery;

a comparator unit ~~for measuring the voltage of the stored electricity for~~
comparing a voltage corresponding to a voltage stored in the battery and
~~comparing the voltage with a reference voltage~~;

a discharge control unit for starting discharge of the battery when a
predetermined external input signal is received ~~input with the external input~~
~~unit~~, and for stopping discharge ~~from of the battery~~ when the ~~a comparison~~
result determined by the comparator unit ~~becomes satisfying to a discharge step~~
satisfies a predetermined condition;

a charge state judge unit for ~~causing controlling a notification state of the~~ notification unit ~~to issue the notification to a~~ using a first state-notification procedure when a second predetermined external input signal is received ~~with the external input unit is input, and for controlling causing a notification state of the notification unit to issue the notification using to a second state-notification procedure which is different from the first notification state when after the first state the battery unit is charged and the a comparison result determined by the comparator unit becomes satisfying to~~ satisfies a second predetermined condition;

a trouble detecting unit for detecting a drive ~~trouble problem of in the~~ electric motor; and

a drive trouble judge unit for ~~controlling causing a notification state of the notification unit to issue the notification using into a third state-notification procedure~~ when a third predetermined external input signal is received ~~is input with the external input unit, and for controlling the notification state of causing the notification unit to issue the notification using into a fourth state-procedure which is different from the third state when a drive trouble problem is detected by the trouble detecting unit.~~

19. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a displaying section for displaying time ~~comprising a rolling system including a rotating mechanism driven by an electric motor;~~

a notification unit for ~~issuing a notification to notifying a user;~~

a battery;

a trouble detecting unit for detecting a drive ~~trouble problem of in the~~ electric motor; and

a drive trouble judge unit for ~~controlling a notification state of causing the notification unit to issue the notification using into a first state-notification procedure~~ when a predetermined external signal is ~~input with the external input unit received, and for controlling causing the notification state of the notification unit to issue the notification using into a second state-notification procedure~~

~~which is different from the first state when a drive trouble problem is detected by the trouble detecting unit.~~

20. (Currently Amended) An electronic timepiece comprising:

- ~~an external input unit for inputting receiving an external input signal;~~
- ~~a displaying section for displaying time, said displaying section including comprising a rolling system a rotating mechanism driven by an electric motor;~~
- ~~a battery;~~
- ~~a drive unit for driving the displaying section by use of electrical power stored in the battery;~~
- ~~a trouble detecting unit for detecting a drive trouble problem of in the electric motor; and~~
- ~~a drive trouble judge unit for controlling causing a display state of the displaying section into a to be driven using a first state displaying procedure when a predetermined external signal is received input with the external input unit, and for controlling the display state of causing the displaying section to be driven using into a second state display procedure which is different from the first state when a drive trouble problem is detected by the trouble detecting unit.~~

21. (Currently Amended) A ~~check~~ method for checking an electronic timepiece comprising including a battery and a notification unit for issuing a notification to a user, ÷

- ~~an external input unit for receiving an external input signal;~~
- ~~a notification unit for notifying a user;~~
- ~~a battery;~~
- ~~a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;~~
- ~~a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition; and~~
- ~~a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the~~

~~notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition,~~

~~the said method comprising the steps of:~~

~~a first step of starting the operation of the discharge control unit, and controlling the voltage of the stored electricity of a discharge of the battery by using an input of a in response to a first prescribed predetermined external signal as a start condition; and~~

~~a second step of starting the operation of the charging state judge unit, and controlling the notification state of the notification unit to issue the notification in accordance with the voltage of the stored electricity of the battery by using an input of a in response to a second prescribed predetermined external signal as a start condition.~~

22. (Currently Amended) A ~~check~~ method for checking an electronic timepiece comprising: including a battery, a notification unit for issuing a notification to a user, an electric motor, and a self-diagnostic system,

~~an external input unit for receiving an external input signal;~~

~~a notification unit for notifying a user comprising a displaying section with a rolling system by an electric motor;~~

~~a battery;~~

~~a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;~~

~~a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition;~~

~~a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition;~~

~~a trouble detecting unit for detecting a drive trouble of the electric motor;~~
and

~~a drive trouble judge unit for controlling a notification state of the notification unit into a third state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a fourth state, which is different from the third state when a drive trouble is detected by the trouble detecting unit,~~

~~the said method comprising the steps of:~~

~~a first step of starting the operation of the discharge control unit, and controlling the voltage of the stored electricity a discharge of the battery by using an input of in response to a first prescribed predetermined external signal as a start condition;~~

~~a second step of starting the operation of the charging state judge unit, and controlling the notification state of the notification unit to issue the notification in accordance with the voltage of the stored electricity of the battery by using an input of in response to a second prescribed predetermined external signal as a start condition;~~ and,

~~a third step of starting the operation of the drive trouble judge unit, and controlling the notification state of the notification unit to issue the notification based on a diagnosis the detection result of the drive trouble of the electric motor by the self-diagnosis system using an input of in response to a third prescribed predetermined external signal as a start condition.~~

23. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a user notification unit for ~~notifying a user of providing~~ prescribed information, including time information, ~~comprising said user notification unit including~~ a displaying section with a ~~rolling system rotating mechanism driven~~ by an electric motor;

a battery;

a drive unit for driving the user notification unit by use of electrical power stored in the battery;

a comparator unit for comparing a voltage corresponding to a voltage of the stored electricity in the battery with a reference voltage;

a discharge control unit for starting discharge of the battery when a predetermined external input signal is input with the external input unit received, and for stopping discharge from of the battery when the a comparison result determined by the comparator unit becomes satisfying to a discharge stop satisfies a predetermined condition;

a trouble detecting unit for detecting a drive trouble problem of in the electric motor; and

a drive trouble judge unit for controlling causing a notification state of the user notification unit into to provide information using a first state notification procedure when a second predetermined external signal is input with the external input unit is received, and for controlling the notification state of causing the notification unit to provide information using into a second state notification procedure which is different from the first state when a drive trouble problem is detected by the trouble detecting unit.

24. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external ~~input signal~~;

a user notification unit for notifying a user of providing prescribed information, including time information, said user notification unit comprising including a displaying section with a rolling system rotating mechanism driven by an electric motor;

a battery;

a drive unit for driving the notification unit by use of electrical power stored in the battery;

a comparator unit for comparing a voltage corresponding to a of the stored electricity in the battery with a reference voltage;

a charge state judge unit for controlling causing a notification state of the user notification unit to provide information using a first state notification procedure when a predetermined external signal is received with the external input unit is input, and for controlling causing a notification state of the user notification unit to provide information using a second state procedure which is

~~different from the first notification state when after the first state the battery unit is charged and the~~ a comparison result determined by the comparator unit ~~becomes satisfying to~~ satisfies a predetermined condition;

a trouble detecting unit for detecting a drive ~~trouble problem of in~~ the electric motor; and

a drive trouble judge unit for ~~causing controlling a notification state of the user notification unit into to provide information using a third state procedure when a second predetermined external signal is input with the external input unit is received, and for controlling causing the notification state of the user notification unit to provide information using into a fourth state procedure which is different from the third state when a drive trouble problem is~~ detected by the trouble detecting unit.

25. (New) An electronic timepiece comprising:

an external input unit configured to receive an external input signal;

a displaying section configured to display time;

a battery;

a drive unit configured to drive the displaying section by use of electrical power from the battery;

a comparator unit configured to compare a voltage corresponding to a voltage stored in the battery with a reference voltage,

a discharge control unit configured to start discharge of the battery in response to said external input unit receiving a predetermined external input signal, and to stop discharge of the battery in response to a comparison result determined by the comparator unit satisfying a predetermined condition.

26. (New) An electronic timepiece according to claim 25,

wherein the discharge control unit is configured to resume discharge of the battery in response to a comparison result, which is determined by the comparator unit, not satisfying the predetermined condition.

27. (New) An electronic timepiece according to claim 26,

wherein the discharge control unit is further configured to start discharge of the battery with a first discharge procedure in response to a said

external input unit detecting the reception of a predetermined external signal;
and

wherein the discharge control unit is configured to stop the current discharge of the battery operation and to restart the discharge of the battery with a second discharge procedure in response to the comparison result from the comparator unit satisfying the predetermined condition;

wherein the discharge rate of the second discharged procedure is configured to be lower than that of the first discharge procedure.

28. (New) An electronic timepiece according to claim 25, further comprising a discharge unit that forms a closed circuit with the battery;

wherein the discharge unit is configured to conduct discharge current from the battery through the closed circuit.

29. (New) An electronic timepiece according to claim 25,

wherein the discharge control unit is further configured to discharge the battery by causing the drive unit to drive the display section.

30. (New) An electronic timepiece according to claim 25,

wherein the displaying section comprises a rotating mechanism driven by an electric motor; and

the discharge control unit is configured to discharge the battery by causing the drive unit to increase the speed of the rotating mechanism of the displaying section.

31. (New) An electronic timepiece according to claim 25, further comprising a charging state judge unit configured to cause the drive unit to drive the displaying section using a first displaying procedure in response to a predetermined external input signal received by the external input unit, and configured to cause the drive unit to drive the displaying section using a second displaying procedure when a comparison result determined by the comparator unit satisfies a second predetermined condition.

32. (New) An electronic timepiece according to claim 25, wherein the displaying section comprises a rotating mechanism driven by an electric motor, said electronic timepiece further comprising:

a charging state judge unit configured to cause the drive unit to drive the displaying section using a first displaying procedure when the external input unit detects reception of a predetermined external input signal, and for causing the drive unit to drive the displaying section using a second displaying procedure when a comparison result determined by the comparator unit satisfies a second predetermined condition;

a trouble detecting unit configured to detect a drive problem in the electric motor; and

a drive trouble judge unit configured to cause the drive unit to drive the displaying section using a third displaying procedure when a predetermined external input signal is received by the external input unit, and further configured to cause the drive unit to drive the displaying section using a fourth displaying procedure when a drive problem is detected by the trouble detecting unit.